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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,887	11/26/2003	Thomas M. Laney	87430CPK	1673

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EXAMINER	
BUTLER, PATRICK NEAL	
ART UNIT	**PAPER NUMBER**
1791	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/722,887	LANEY ET AL.	
	Examiner	Art Unit	
	Patrick Butler	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19,21-26 and 29-40* is/are pending in the application.

4a) Of the above claim(s) *31-39* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19,21-26,29,30 and 40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Reopening of Prosecution

The Board of Patent Appeals and Interferences reversed all rejections on appeal in the decision of 2 July 2009. However, prosecution of the instant application is re-opened upon further consideration of Morita et al. (US Patent No. 5,405,887). As such, a new non-final rejection is presented below. Authorization by a Technology Center Director or designee as required by MPEP § 1214.04 is provided at this Action's conclusion. Claims 19, 21-26, and 29-40 are pending, with Claims 31-39 withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 19, 21-26, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al. (US Patent No. 5,405,887).

With respect to Claims 19 and 40, Morita teaches a method of making a porous film by adding from 40-250 parts finely-powdered filler to 100 parts polylactic acid-based resin composition and melting (blending void initiating particles into a melt comprising a polylactic-acid-based material wherein the void initiating particles are employed in an amount of 30-50% by volume in feedstock) (see Abstract). The blend is melt-extruded through a flat die to form an extrudate (extruding the polylactic-acid-based materials as

a monolayer film to form a sheet comprising a layer of a polylactic-acid-based material containing inorganic particles) (see col. 7, lines 7-27). Morita teaches stretching biaxially from 1.1 to 10 times (see col. 7, lines 28-32) and teaches, more specifically, stretching 3 times in one direction and 3 times in another direction (see Table 4, Example 3). The biaxial drawing ratio of Claim 19 of greater than 3 times and not more than 5 times and the biaxial drawing ratio of Claim 40 of greater than 3.3 times and not more than 5 times are obvious over Morita because the claimed ranges lie inside ranges disclosed by the prior art (see MPEP § 2144.05(I)). Moreover, biaxial drawing ratios of Claim 19 and 40 are obvious because their lower range of greater than 3 and 3.3, respectively, and Morita's disclosed teaching of stretching 3 times in one direction and 3 times in another direction are close enough that one skilled in the art would have expected them to have the same properties (see MPEP § 2144.05(I)). Morita's stretching ranges recited above of from 1.1 to 10 times (see col. 7, lines 28-32) and stretching 3 times in one direction and 3 times in another direction (see Table 4, Example 3) would necessarily cause the area ratio between the non-stretched sheet and the biaxially stretched film to be in the range of 1.2 to 100 and 9, respectively. Similar to the obviousness of the claimed biaxial drawing ratio, the area ratio of Claim 19 of greater than 10 times and not more than 20 times and the biaxial drawing ratio of Claim 40 of at least about 11 times and not more than 20 times are obvious over Morita because the claimed ranges lie inside ranges disclosed by the prior art (see MPEP § 2144.05(I)). Moreover, area ratios of Claim 19 and 40 are obvious because their lower range of greater than 10 and 11, respectively, and Morita's disclosed teaching of

stretching 3 times in one direction and 3 times in another direction are close enough that one skilled in the art would have expected them to have the same properties (see MPEP § 2144.05(I)). Morita's film would have pores (title). The sheet would necessarily be microvoided and have a total adsorbent capacity of at least about 14 cc/m^2 principally because its process is the same process as claimed.

With respect to Claim 21, Morita's sheet is stretched at a temperature of T_g + 50 °C such as 60 °C (under 75 °C) (see col. 7, lines 35-39 and col. 10, lines 44-46).

With respect to Claims 22 and 23, Morita's average particle diameter is 0.3 to 4 μm (see Abstract), which reads on the claimed range of 0.1-1 μm (Claim 22) and 0.1-0.6 μm (Claim 23).

With respect to Claim 24, the film thickness is from 10 to 300 μm (see col. 7, lines 40-44), which reads on the claimed range of 25-400 μm.

With respect to Claim 25, Morita teaches a method of making a porous film by adding from 40-250 parts finely-powdered filler to 100 parts polylactic acid-based resin composition, which would necessarily overlap 45-75 weight % filler (see Abstract). The filler is inorganic (see col. 6, lines 28-38).

With respect to Claim 26, Morita teaches using barium sulfate, calcium carbonate, zinc oxide, titanium dioxide, and silica (see col. 6, lines 28-38).

Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al. (US Patent No. 5,405,887) as applied to Claim 19 above, and further in view of Kanai et al. (*Film Processing*, pages 322 and 323).

With respect to Claim 29, Morita teaches the method of making film as previously described. Morita does not appear to expressly teach stretching the sheet in both directions simultaneously.

Kanai et al. teach simultaneous biaxial stretching of film (see page 322, § 6.3.2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kanai's simultaneous biaxial stretching in the process of Morita in order to have good processability and simultaneous relaxation (see page 322, § 6.3.2).

With respect to Claim 30, Morita teaches the method of making film as previously described. Morita does not appear to expressly teach stretching the sheet in a machine direction first followed by a transverse direction.

Kanai et al. teach stretching film in a machine direction first followed by a transverse direction (see page 323, Sequential Biaxial Stretching sections).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kanai's stretching film in a machine direction first followed by a transverse direction in the process of Morita in order to avoid the shortcomings of the other biaxial stretching. Specifically, simultaneous biaxial stretching is unsuitable for high-speed processing and TD then LD (transverse then machine direction) biaxial stretching is unsuitable for uniformly stretching wide film (see page 323, second paragraph and second-from-last paragraph).

Response to Arguments

Applicant's arguments filed 12 March 2008 and 24 July 2008 have been fully considered but they are not persuasive.

Applicant argues with respect to the 35 U.S.C. § 102(b) rejections. Applicant's arguments appear to be on the grounds that:

1) Morita does not teach the following claimed features: stretching biaxially, that both stretching directions' draw ratios are either between 3 and 5 or greater than 3.3, that the area ratio of the non-stretched sheet to stretched sheet is either between 10:1 and 20:1 or at least 11, that interconnected microvoids are formed around the inorganic particles, and that the sheet has an absorbent capacity of 14 cc/m^2.

2) Morita does not teach the claimed process's resultant absorbency because Morita does not provide an example using the claimed parameters and because Morita is directed to a leakproof material rather than the claimed invention's permeability. Furthermore, Morita does not teach the claimed method parameters because it would not have been obvious to one of ordinary skill in the art at the time the invention was made to combine the steps in Morita to form a product different from Morita's intentions.

3) Morita's disclosure of permeability is not a disclosure of absorbency.

The Applicant's arguments are addressed as follows:

1) Applicant's arguments with respect to whether Morita anticipates the claimed biaxial stretching ratios and area ratios are persuasive. However, upon further consideration, a ground(s) of rejection based on the obviousness, rather than the anticipation, of the ranges as described in the 35 U.S.C. § 103(a) rejection over Morita.

1 and 3) The Examiner relies on Morita to teach that interconnected microvoids are formed around the inorganic particles and an absorbent capacity of 14 cc/m^2 because Morita teaches all the claimed steps for achieving the claimed results of microvoiding and absorbent capacity. Moreover, Morita's product is microvoided and absorbent since it is permeable and able to absorb moisture (see col. 1, lines 18-27). Furthermore, with respect to the claimed resultant absorbency of 14 cc/m^2, the examiner recognizes that all of the claimed effects and physical properties are not positively stated by the reference(s). Note however that the references teach all of the claimed ingredients, process steps and process conditions and thus, the claimed effects and physical properties would necessarily be achieved by carrying out the disclosed process. If it is applicants' position that this would not be the case: (1) evidence would need to be presented to support applicants' position; and (2) it would be the examiner's position that the application contains inadequate disclosure in that there is no teaching as to how to obtain the claimed properties and effects by carrying out only these steps.

2 and 3) The Examiner relies on Morita for all that it teaches rather than individual examples and relies on Morita's teaching of making a product that is permeable and able to absorb moisture (see col. 1, lines 18-27).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Butler whose telephone number is (571) 272-8517. The examiner can normally be reached on Mon.-Thu. 7:30 a.m.-5 p.m. and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. B./
Examiner, Art Unit 1791

/Christina Johnson/
Supervisory Patent Examiner, Art Unit 1791

/Gregory L Mills/
Supervisory Patent Examiner, Art Unit 1700